NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

RESIDUE MANAGEMENT, SEASONAL
(Acre)
CODE 344

DEFINITION

Managing the amount, orientation, and distribution of crop and other plant residues on the soil surface during part of the year, while growing crops in a clean tilled seedbed.

PURPOSES

This practice may be applied as part of a conservation management system to support one or more of the following:

- Reduce sheet and rill erosion
- Provide food and escape cover for wildlife

CONDITIONS WHERE PRACTICE APPLIES

This practice applies to all cropland and other land where crops are grown.

This standard includes residue management methods practiced during the part of the year from harvest until residue is buried by tillage to provide a seedbed relatively free from crop residue.

CRITERIA

General Criteria Applicable to All Purposes Named Above:

Loose residue to be retained on the field shall be uniformly distributed on the soil surface. Where combines or similar machines are used for harvesting, they shall be equipped with spreaders capable of redistributing residues over at least 80 percent of the working width of the header. Partial or complete removal of the crop residue shall only be done just prior to spring tillage and planting.

Additional Criteria to Reduce Sheet and Rill Erosion

The amount of residue needed to meet the desired soil loss objective shall be determined using the Revised Universal Soil Loss Equation. (RUSLE).

Partial removal of residue shall be limited to retain the amount needed to meet the desired objective. The remaining residue shall be maintained on the surface through periods when sheet and rill erosion has the potential to occur, or until planting, whichever occurs first.

Any tillage that occurs during the management period shall be limited to methods which leave residue on the surface and maintain the planned cover conditions.

Additional Criteria to Provide Food and Escape Cover for Wildlife

The amount of residue, height of the stubble, and length of the management period necessary for meeting habitat requirements for the target species or wildlife population shall be determined using an approved habitat evaluation procedure.
Tillage shall be delayed until the end of the management period to maintain the food and cover value of the residue.

CONSIDERATIONS

Excess removal of plant residue by baling or grazing often produces negative impacts on resources. These activities should not be performed without full evaluation of impacts on soil, water, animal, plant, and air resources.

Production of adequate amounts of crop residue necessary for the proper functioning of this practice can be enhanced by selection of high residue producing crops and crop varieties, by the use of cover crops, and by adjustment of plant populations and row spacing.

When planting on a clean seedbed, exposure to erosion can be minimized by completing tillage and planting in a single operation, or by performing primary tillage no more than three days before planting.

The effectiveness of stubble to trap snow increases with stubble height.

The value of residue for wildlife habitat can be enhanced by leaving rows of unharvested crop standing at intervals across the field.

PLANS AND SPECIFICATIONS

Specifications for establishment and operation of this practice shall be prepared for each field or treatment unit according to the Criteria, Considerations, and O&M described in this standard.

Specifications shall be recorded using narrative statements in the conservation plan, approved certification sheets, job sheets, or other acceptable methods.

OPERATION AND MAINTENANCE

No operation and maintenance requirements, statewide in scope, have been identified for this practice.

REFERENCES

1. Predicting Soil Erosion by Water: A Guide to conservation Planning with the Revised Universal Soil Loss Equation (RUSLE), USDA Agricultural Handbook No. 703, 1997

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.